

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No. 10/756,086

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METHOD AND SYSTEM FOR INITIATING A VEHICLE
DATA UPLOAD FUNCTION AT A PLURALITY OF MOBILE VEHICLES

Filed: January 13, 2004

Group Art Unit: 2618

Examiner: Dominic E. Rego

Attorney Docket No. GP-304326-OST-ALS

APPEAL BRIEF

Board of Patent Appeals and Interference
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, Virginia 22313-1450

Dear Sir:

On May 5, 2009, Appellant filed a Notice of Appeal from the final rejection mailed January 16, 2009. This brief is being filed in support of the appeal.

(i) Real Party in Interest

The real party in interest is the assignee of the applicant inventor who assigned all of his right, title and interest to General Motors Corporation, a Michigan corporation, having its principal place of business at 300 Renaissance Center, Detroit, Michigan 48265-3000.

(ii) Related Appeals and Interferences

There are no other appeals and/or interferences known to Appellant, his assignee, and/or legal representatives that will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

(iii) Status of Claims

In the Final Office Action, claims 1-20 stand rejected under 35 U.S.C. §102(c). The rejections of claims 1-20 are being appealed.

(iv) Status of Amendments

No amendment has been filed subsequent to the final rejection.

(v) Summary of Claimed Subject Matter

In accordance with 37 C.F.R. § 41.37(c)(1)(v), a concise explanation is provided below of subject matter defined in each of the independent claims involved in this appeal, with reference to the specification by page and line numbers and to the drawings by reference characters. Also in accordance with 37 C.F.R. § 41.37(c)(1)(v), for each dependent claim argued separately under the provisions of 37 C.F.R. § 41.37(c)(1)(vii), every means plus function as permitted by 35 U.S.C. § 112, sixth paragraph, is identified and the structure, material, or acts described in the specification as corresponding to each claimed function is set forth with reference to the specification by page and line numbers, and to the drawings by reference characters.

Independent Claim 1 —

Independent claim 1 is directed to a method of initiating a vehicle data upload function at a plurality of mobile vehicles. The method comprises monitoring a radio system broadcast channel using a satellite radio receiver in each of the plurality of mobile vehicles for a call center initiated vehicle data upload command signal sent to the plurality of mobile vehicles (Figs. 3-4, Blocks 340, 405, 410, 415, 430; Page 8, Lines 1-13, Page 19, Lines 22-25, and Page 24, Lines 19-26); and, for each of plurality of mobile vehicles, determining whether the vehicle data upload command signal corresponds to that mobile vehicle (Fig. 4, Block 435; Page 24, Line 26-Page 25, Line 4), extracting the vehicle data upload command signal from the broadcast channel based on the determination (Fig. 4, Block 450; Page 25, Lines 4-5), communicating the vehicle data upload command signal between the satellite radio receiver and a telematics unit on the vehicle (Fig. 4, Block 455; Page 25, Lines 11-13), and performing a vehicle data upload function using the telematics unit based on the extracted vehicle data upload command signal (Fig. 4, Block 455; Page 25, Lines 14-18).

Independent Claim 11 —

Independent claim 11 is directed to a computer readable medium including a stored computer program code for initiating a vehicle data upload function at a plurality of mobile vehicles. The computer readable medium comprises computer program code

for monitoring a radio system broadcast channel using a satellite radio receiver to detect a call center initiated vehicle data upload command signal sent to the plurality of mobile vehicles; and, for each of plurality of mobile vehicles (Figs. 3-4, Blocks 340, 405, 410, 415, 430; Page 8, Lines 1-13, Page 19, Lines 22-25, and Page 24, Lines 19-26), computer program code for determining at each of the plurality of mobile vehicles whether the vehicle data upload command signal corresponds to that mobile vehicle (Fig. 4, Block 435; Page 24, Line 26-Page 25, Line 4), computer program code for extracting the vehicle data upload command signal from the broadcast channel based on the determination (Fig. 4, Block 450; Page 25, Lines 4-5), computer program code for communicating the vehicle data upload command signal between the satellite radio receiver and a telematics unit on the vehicle (Fig. 4, Block 455; Page 25, Lines 11-13) and computer program code for performing a vehicle data upload function using the telematics unit based on the extracted vehicle data upload command signal (Fig. 4, Block 455; Page 25, Lines 14-18).

Independent Claim 16 —

Independent claim 16 is directed to a system including means for initiating a vehicle data upload function at a plurality of mobile vehicles. The system comprises means for monitoring a radio system broadcast channel using a satellite radio receiver in each of the plurality of mobile vehicles for a call center initiated vehicle data upload command signal sent to the plurality of mobile vehicles (Figs. 1 and 3, Blocks 120, 140, 150, 170, 180, 340; Page 6, Lines 22-26; Page 7, Lines 22-27; and Page 8, Lines 1-13), means for determining at the plurality of mobile vehicles whether the vehicle data upload command signal corresponds to that mobile vehicle (Fig. 1, Blocks 120, 122; Page 10, Lines 6 and 14-19); means for extracting the vehicle data upload command signal from the broadcast channel based on the determination (Fig. 1, Blocks 120, 122; Page 10, Lines 6 and 14-19); means for communicating the vehicle data upload command signal between the satellite radio receiver and a telematics unit on the vehicle (Fig. 1; Page 10, Line 29-Page 11, Line 1); and means for performing a vehicle data upload function using the telematics unit based on the extracted vehicle data upload command signal (Fig. 1, Blocks 120, 122; Page 10, Lines 6 and 14-19).

Although the Appellant has provided the summary of claimed subject matter with references to specific embodiments of the invention to comply with the requirements set forth in the relevant provisions of 37 C.F.R., this summary has been provided to aid the Board in evaluating the appeal and is not intended to limit the meaning or definition of any terms in the claims. Furthermore, it should be appreciated that the above-provided reference numerals and pages/line numbers are only for exemplary purposes, as other instances and/or embodiments of the claimed elements could appear elsewhere in the application.

(vi) Grounds of Rejection to be Reviewed on Appeal

The sole issue to be considered on appeal is whether claims 1-20 are anticipated under 35 U.S.C. § 102(e) by Lange et al. (U.S. Patent No.6,704,564).

(vii) Argument**Rejections under §102(e)—**

Claims 1-20 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Lange et al. (U.S. Patent No. 6,704,564). The Appellant respectfully traverses this rejection because Lange fails to disclose each and every element of Appellant's claims.

Claims 1, 11, and 16— Lange Fails To Anticipate The Subject Matter Of Appellant's Claims.

The Examiner has not established anticipation under 35 U.S.C. § 102(e) because the Examiner has not shown that the Lange reference discloses each and every element of the invention specified in Appellant's claims. As stated in MPEP § 2131, "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)." The Examiner has failed to meet this burden. In particular, the Examiner has failed to show and, in fact, Lange does not disclose, at least the following three elements from Appellant's independent claims: (1) monitoring a radio system broadcast channel using a satellite radio receiver; (2) monitoring the radio broadcast channel using a satellite radio receiver for a call center initiated vehicle data upload command signal sent to the plurality of mobile vehicles; and (3) communicating the vehicle data upload command signal between the satellite radio receiver and a telematics unit on the vehicle. These deficiencies in the rejection are discussed below.

1. **Lange Does Not Disclose Monitoring a Radio System Broadcast Channel Using A Satellite Radio Receiver.**

At a minimum, Lange fails to disclose the claimed use of a "satellite radio receiver" as that term is used by Appellant and understood by those skilled in the art. Appellant can find no teaching, explicit or implicit, of Appellant's claimed satellite radio receiver in the Lange reference. In particular, Lange discloses two things potentially relevant to this inquiry: (1) a GPS receiver and (2) a telematics (or telecommunications) device. Neither is a satellite radio receiver. In asserting that Lange discloses use of a

satellite radio receiver to monitor a radio system broadcast channel, the Examiner points to sections of Lange that teach an in-vehicle telematics device receiving input from a GPS receiver. For example, the Examiner states that:

Lange teaches in-vehicle telematics device typically includes various vehicle inputs that receive data relating to vehicle conditions (e.g. engine status, wiper status, air bag status, vehicle speed, et cetera (etc.)), an input to receive information relating to vehicle position (e.g., a Global Positioning System (GPS) receiver or GLObal NAVigation Satellite System (GLONASS) receiver), and a data/cellular transceiver.¹[sic] (Emphasis in original.)

This statement is made as a part of the rejection proper, as well as in the Examiner's response to Appellant's prior remarks both at the bottom of Pages 8 and 9 of the Final Office Action. This is then followed by a conclusion on Page 10 that therefore a "satellite radio receiver [is] included in the telematics device for detecting a vehicle data upload command signal." These statements and citations to Lange seem to indicate that the Examiner considers the GPS receiver (item 282 shown in Fig. 2B) as being the satellite radio receiver recited in Appellant's claims, and that it is included in and not separate from the telematics device. However, other statements suggest that it is the telematics device that the Examiner considers as being the satellite radio receiver. See, for example, Page 9, lines 7-8, where the Examiner states that Lange's "telematic [sic] device 110 (fig. 1) constantly monitoring [sic] a radio system broadcast channel." In any event, neither is correct.

As widely understood by layman as well as those skilled in the art, and as is reinforced by Appellant's description, a "satellite radio receiver" is an electronic device capable of receiving and outputting an audio signal containing music, news, information and/or other such content that is broadcast by one or more satellites over a radio system broadcast channel used by the satellite(s). The broadcasted content provided by XMTM and SiriusTM are two examples of satellite radio. To the extent the Examiner has concluded that a GPS receiver is a "satellite radio receiver," it is apparent that, rather than interpreting this term as it would be understood by those skilled in the art, he has instead parsed the term out into its individual elements and concluded that a GPS receiver (1) receives signals from "satellites", (2) receives the signals via "radio" frequency

transmission , and (3) is a "receiver" and therefore, it is a "satellite radio receiver". However, this interpretation is not reasonable because it flies in the face of what those skilled in the art understand a "satellite radio receiver" to be and because it is inconsistent with what Appellant discloses as a "satellite radio receiver".

With regard to what one skilled in the art understands to be meant by this term, a simple Internet search will dispel any serious contention that a GPS receiver is considered a "satellite radio" receiver. And, as to Appellant's own specification, Appellant discloses the broadcast transmissions provided by a satellite radio broadcast system are ones that include "music and entertainment, traffic information, road construction information, advertisements, [and] news and information on local events."² Furthermore, Appellant discloses "a satellite radio receiver 140 that generates audio output."³ In that sense, once the broadcast transmissions are received, such as music, news, or other information, the satellite radio receiver can convert it to audio output for playback to a vehicle occupant. Conversely, no reasonable interpretation of a GPS receiver can view it as: (1) receiving music and entertainment data; or (2) converting data received from GPS satellites into audible sound. Transmissions from GPS satellites to GPS receivers include data such as the identity of a satellite, the time of week, the GPS week, satellite health information, ephemeris data regarding the precise position of the satellite, and almanac data indicating orbit and status information of all satellites in a constellation. And these transmissions are used for determining the location of the vehicle rather than user entertainment or news and information on local events. Moreover, neither the common understanding of GPS position data nor Lange's teachings suggest a GPS receiver that generates audio output. For all of these reasons, a GPS receiver such as disclosed in Lange is not a "satellite radio receiver".

Nor is the telematics device of Lange a "satellite radio receiver". Lange expressly states that the telematics system communicates with the service center via cellular telephony, and gives as examples the now defunct Ford RESCU system as well as Appellant's assignee's Onstar® system which utilizes cellular telephone communication

¹ Final Office Action, January 16, 2009, page 8, lines 13-18.

² Appellant's Application, page 8, lines 1-6.

³ Appellant's Application, page 6, line 26.

between the vehicle and call center. There is nothing from Lange that discloses use of satellite-based communications for the telematics devices 110, 210, 310, or 410 disclosed therein.

2. Lange Fails to Disclose Monitoring a Radio System Broadcast Channel Using a Satellite Radio Receiver for a Call Center Initiated Vehicle Data Upload Command Signal Sent to the Plurality of Mobile Vehicles.

Apart from the fact that Lange does not teach monitoring using a satellite radio receiver, it also does not teach any such monitoring specifically for a call center initiated vehicle data upload command signal that is sent over the radio system broadcast channel being monitored.

The Examiner points to Lange's disclosure of a GPS system as a satellite radio receiver that sends data to the telematics unit and is configured with a trigger to upload information to the call center. However, apart from the fact that the GPS receiver is not a satellite radio receiver, Lange's use of a GPS receiver does not teach or suggest sending a call center initiated vehicle data upload command signal over a satellite radio broadcast channel, which is then checked to see if it corresponds to the vehicle and, if so, extracting it and carrying out an upload from a telematics unit based on the extracted command. According to what is understood to be the Examiner's interpretation of Lange, the service center would send a trigger signal to the GPS receiver via a GPS satellite; an arrangement not only contrary to an ordinary understanding of GPS satellite function but clearly not taught or disclosed by Lange. There is nothing in Lange or otherwise that has been shown from the prior art that indicates that GPS signals sent from satellites include commands, much less a vehicle data upload command signal, and much less something in that command or otherwise in the broadcast that can be used to determine if such a command corresponds to the vehicle receiving the broadcast.

While Lange does disclose the general concept of a sending a trigger signal from a service center to a vehicle, the method of transmission of this trigger signal is wholly different than the steps recited in Applicant's claims. Rather, Lange teaches communicating between a call center and a vehicle using cellular telephone technology.

More specifically, Lange discloses a “service center [that] communicates with the telematics device via a cellular telephone interface.”⁴ (Emphasis added.) Thus, the trigger configuration signal in Lange, to the extent it would be considered a vehicle data upload command signal, is not one received via a satellite radio receiver, but via a cellular telephone system which, as known by those skilled in the art, utilize cell towers and other such local antennas to send and receive wireless communications. Thus, Lange does not disclose monitoring “for a call center initiated vehicle data upload command signal” using a satellite radio receiver, as claimed.

3. Lange Also Fails to Disclose Communicating a Vehicle Data Upload Command Signal Between a Satellite Radio Receiver and a Telematics Unit

As described in Lange, the disclosed system utilizes the telematics device to receive trigger configuration signals from the service center, and then responds with a message sent from the telematics device to the service center, all via cellular telephony. Thus, there is no communication of a vehicle data upload command signal from a satellite radio receiver to a telematics device. Moreover, while the telematics device can have an input to receive GPS data from a GPS receiver 282, the trigger signals come straight from the service center to the telematics device and not via the GPS, and as discussed above, the GPS receiver is in any event not a satellite radio receiver.

While the above arguments have been addressed with respect to claim 1, they are equally valid when applied to the rejection of independent claim 11 involving a computer readable medium and to rejection of independent claim 16 involving a system cast in means plus function language. Furthermore, claims 2-10, 12-15, and 17-20 each ultimately depend from one of these claims and should be allowed therewith.

Other Considerations

At the top of Page 10 of the Final Office Action, the Examiner states that Lange includes a satellite radio receiver in the telematics device and that Lange discloses a satellite radio receiver embedded within the telematics unit. Appellant disagrees. Lange consistently indicates that the telematics unit can have an external input for receiving

⁴ Lange, U.S. Patent No. 6,704,564, col. 3, lines 45-47.

GPS data, and clearly discloses in Fig. 2B that the GPS system 282 is a separate device connected as an external input 280. It is not embedded within the telematics device 210; thus, it cannot be fairly said that the GPS receiver 282 receives the vehicle data upload command signal or that the signal is sent from the GPS receiver to the telematics device.

As discussed in Appellant's last response, in some embodiments, the satellite radio receiver can be embedded in the telematics unit, and in others it can be a separate component, such as is shown in Appellant's Fig. 1. In that case, the vehicle data upload command signal can be communicated between the satellite radio receiver and telematics unit by sending the received satellite radio broadcast to the telematics unit where it is monitored for the vehicle data upload command signal, or alternatively, the satellite radio receiver can be configured to monitor for the signal, extract it, and then send only it to the telematics unit. Other such approaches (e.g., using a third intermediary monitoring device) will be known or apparent to those skilled in the art.

Conclusion

In view of the foregoing, Appellant respectfully submits that the Examiner has not established that Lange anticipates claims 1-20. To the contrary, Lange in fact fails to disclose each and every element of the claims. Therefore, Appellant requests Board action to overturn the rejection of all pending claims.

The Commissioner is hereby authorized to charge any amounts, or credit any overpayment associated with this communication to Deposit Account No. 07-0960.

Respectfully submitted,

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(viii) **Claims Appendix**

1. A method of initiating a vehicle data upload function at a plurality of mobile vehicles, the method comprising:

monitoring a radio system broadcast channel using a satellite radio receiver in each of the plurality of mobile vehicles for a call center initiated vehicle data upload command signal sent to the plurality of mobile vehicles; and, for each of plurality of mobile vehicles,

determining whether the vehicle data upload command signal corresponds to that mobile vehicle;

extracting the vehicle data upload command signal from the broadcast channel based on the determination;

communicating the vehicle data upload command signal between the satellite radio receiver and a telematics unit on the vehicle; and

performing a vehicle data upload function using the telematics unit based on the extracted vehicle data upload command signal.

2. The method of claim 1 further comprising:

determining the plurality of mobile vehicles at a call center based on a service criterion.

3. The method of claim 1 wherein the vehicle data upload function comprises a vehicle data type.

4. The method of claim 1 wherein the vehicle data upload command signal comprises at least one telematics unit identifier.

5. The method of claim 1 wherein performing the vehicle data upload function comprises:

initiating a vehicle data upload call from a telematics unit in the plurality of mobile vehicles to a call center in response to the vehicle data upload command signal.

6. The method of claim 1 wherein performing the vehicle data upload function comprises:

initiating a vehicle data storage of data collected by the vehicle in at least one of the plurality of mobile vehicles in response to the vehicle data upload command signal.

7. The method of claim 1 wherein the vehicle data upload command signal is associated with a vehicle type.

8. The method of claim 1 wherein the vehicle data upload command signal is generated in response to a geographic based diagnostic event.

9. The method of claim 3 wherein the vehicle data type is selected from a group consisting of vehicle performance data, vehicle diagnostic data, vehicle status data, and vehicle operational data.

10. The method of claim 1 wherein determining at the plurality of mobile vehicles whether the vehicle data upload command signal corresponds to the mobile vehicle comprises:

comparing the plurality of telematics unit identifiers of the vehicle data upload command signal to a telematics unit identifier the mobile vehicle; and

detecting if one of the plurality of telematics unit identifiers of the vehicle data upload command signal matches the telematics unit identifier of the mobile vehicle.

11. A computer readable medium including a stored computer program code for initiating a vehicle data upload function at a plurality of mobile vehicles, comprising:

computer program code for monitoring a radio system broadcast channel using a satellite radio receiver to detect a call center initiated vehicle data upload command signal sent to the plurality of mobile vehicles; and, for each of plurality of mobile vehicles,

computer program code for determining at each of the plurality of mobile vehicles whether the vehicle data upload command signal corresponds to that mobile vehicle;

computer program code for extracting the vehicle data upload command signal from the broadcast channel based on the determination;

computer program code for communicating the vehicle data upload command signal between the satellite radio receiver and a telematics unit on the vehicle; and

computer program code for performing a vehicle data upload function using the telematics unit based on the extracted vehicle data upload command signal.

12. The computer readable medium of claim 11 further comprising:

computer program code for determining the plurality of mobile vehicles at a call center based on a service criterion.

13. The computer readable medium of claim 11 wherein computer program code for performing the vehicle data upload function comprises:

computer program code for initiating a vehicle data upload call from a telematics unit in the plurality of mobile vehicles to a call center in response to the vehicle data upload command signal.

14. The computer readable medium of claim 11 wherein computer program code for performing the vehicle data upload function comprises:

computer program code for initiating a vehicle data storage in the plurality of mobile vehicles in response to the vehicle data upload command signal.

15. The computer readable medium of claim 11 wherein computer program code for determining at the plurality of mobile vehicles whether the vehicle data upload command signal corresponds to the mobile vehicle comprises:

computer program code for comparing the plurality of telematics unit identifiers of the vehicle data upload command signal to a telematics unit identifier the mobile vehicle; and

computer program code for detecting if one of the plurality of telematics unit identifiers of the vehicle data upload command signal matches the telematics unit identifier of the mobile vehicle.

16. A system including means for initiating a vehicle data upload function at a plurality of mobile vehicles, comprising:

means for monitoring a radio system broadcast channel using a satellite radio receiver in each of the plurality of mobile vehicles for a call center initiated vehicle data upload command signal sent to the plurality of mobile vehicles;

means for determining at the plurality of mobile vehicles whether the vehicle data upload command signal corresponds to that mobile vehicle;

means for extracting the vehicle data upload command signal from the broadcast channel based on the determination;

means for communicating the vehicle data upload command signal between the satellite radio receiver and a telematics unit on the vehicle; and

means for performing a vehicle data upload function using the telematics unit based on the extracted vehicle data upload command signal.

17. The system of claim 16 further comprising:

means for determining the plurality of mobile vehicles at a call center based on a service criterion.

18. The system of claim 16 wherein means for performing the vehicle data upload function comprises:

means for initiating a vehicle data upload call from a telematics unit in the plurality of mobile vehicles to a call center in response to the vehicle data upload command signal.

19. The system of claim 16 wherein means for performing the vehicle data upload function comprises:

means for initiating a vehicle data storage in the plurality of mobile vehicles in response to the vehicle data upload command signal.

20. The system of claim 16 wherein means for determining at the plurality of mobile vehicles whether the vehicle data upload command signal corresponds to the mobile vehicle comprises:

means for comparing the plurality of telematics unit identifiers of the vehicle data upload command signal to a telematics unit identifier the mobile vehicle; and

means for detecting if one of the plurality of telematics unit identifiers of the vehicle data upload command signal matches the telematics unit identifier of the mobile vehicle.

(ix) Evidence Appendix

None.

(x) Related Proceedings Appendix

None.